

REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

Claims 1, 8, and 12 have been amended for clarity and to ensure proper antecedent support for each recited feature.

Claims 1 and 12 were rejected, under 35 U.S.C. §103(a), as being unpatentable over Rong et al. (US 2004/0252670) (hereinafter “Rong”) in view of Li et al. (US 2005/0083998) (hereinafter, “Li”). Claims 2 and 6 were rejected, under 35 U.S.C. §103(a), as being unpatentable over Rong et al. (US 2004/0252670) in view of Li et al. (US 2005/0083998) and further in view of Nobukiyo et al. (US 2003/0073409) (hereinafter, “Nobukiyo”). Claim 3 was rejected, under 35 U.S.C. §103(a), as being unpatentable over Rong et al. (US 2004/0252670) in view of Li et al. (US 2005/0083998) and further in view of Hottinen et al. (US 2004/0066754) (hereinafter, “Hottinen”). Claim 4 was rejected, under 35 U.S.C. §103(a), as being unpatentable over Rong et al. (US 2004/0252670) in view of Li et al. (US 2005/0083998) and further in view of Srivastava et al. (US 6,735,178) (hereinafter, “Srivastava”). Claim 5 was rejected, under 35 U.S.C. §103(a), as being unpatentable over Rong et al. (US 2004/0252670) in view of Li et al. (US 2005/0083998) and further in view of Yoneyama et al. (US 2004/0162073) (hereinafter, “Yoneyama”). Claim 7 was rejected, under 35 U.S.C. §103(a), as being unpatentable over Rong et al. (US 2004/0252670) in view of Li et al. (US 2005/0083998) and further in view of Ryu (US 2002/0126645) (hereinafter, “Ryu”). Claim 8 was rejected, under 35 U.S.C. §103(a), as being unpatentable over Kamel et al. (US 6,496,531) (hereinafter, “Kamel”) in view of Li. Claim 9 was rejected, under 35 U.S.C. §103(a), as being unpatentable over Kamel et al. (US 6,496,531) in view of Li et al. (US

2005/0083998) and further in view of Nobukiyo et al. (US 2003/0073409). Claim 10 was rejected, under 35 U.S.C. §103(a), as being unpatentable over Kamel et al. (US 6,496,531) in view of Li et al. (US 2005/0083998) and further in view of Ghosh (US 5,991,285) (hereinafter, "Ghosh"). Claim 11 was rejected, under 35 U.S.C. §103(a), as being unpatentable over Kamel et al. (US 6,496,531) in view of Li et al. (US 2005/0083998) and further in view of Hans et al. (US 2005/0037766) (hereinafter, "Hans"). To the extent that these rejections may be deemed applicable to the amended claims herein, the Applicant respectfully traverses as follows.

Claim 1 now defines a base station apparatus that, *inter alia*, selects, from among a plurality of mobile stations, a mobile station to which a data channel is assigned, in accordance with both measured channel quality of a control channel for transmitting control information and independently measured channel quality of the data channel. The claimed subject matter provides an advantage of improving transmission efficiency, with improved suppression of interference between communications in adjacent cells, and further improving downlink capacity (see paragraph [0048] of the published U.S. application). (It should be noted that references herein to the specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments).

It is respectfully submitted that Rong fails to disclose, either expressly or inherently, at least the subject matter now recited by the Applicant's claim 1 of selecting, from among a plurality of mobile stations, a mobile station to which a data channel is assigned, in accordance with both measured channel quality of a control channel and independently measured channel quality of the data channel.

By way of review, Rong is directed towards providing a method of more precisely managing transmission power, especially transmission power of transmissions sent from a base station, in a spread spectrum environment (see Rong, paragraph [0014]-[0015]).

To achieve more precise transmission power management, Rong discloses that a base station (BS 20) adjusts the power margin in a downlink data channel (F-PDCH) and downlink control channel (F-PDCCH) based on the ACK/NACK message (R-ACKCH) transmitted from a mobile station (MS 22) (see for example Rong, paragraphs [0027] and [0031] and FIGs. 1 and 2).

More specifically, Rong is designed to adjust the power margin during a single call between a base station (BS 20) and a single mobile station (i.e., the MS 22). Rong discloses that the communications are between a single base station (BS 20) and a single mobile station (MS 22) throughout his specification. (see Rong, FIG. 1, depicting communications between the BS 20 and the MS 22; paragraph [0027], disclosing “the power margin adjustments described below preferably apply to a single call (e.g., a single phone call to the MS 22, a single period of the MS 22 being logged onto a data network such as the internet, or the period of time which a traffic channel is dedicated to the communication through the BS 20 to the MS 22)”; paragraph [0029], disclosing “the first control power margin 42 and first data power margin 44 for a call to the MS 22 is preferably initialized in accordance with the prior art”; paragraph [0030], disclosing “...the MS 22 receives the two-slot message 36 over the control channel 24a, properly decodes and demodulates it, and determines that the corresponding packet-1 message 38 is directed to it”; paragraph [0026], disclosing “[i]t is important to note that the below description referring to changes in power margins to adjust power level transmitted by the BS to the MS 22 apply only to transmissions to that particular

MS 22”). As indicated by Rong’s consistent reference to a single mobile station MS 22, it is clear that Rong’s invention is directed towards improving power transmission between a base station and a single mobile station, and is not directed towards, or even related to, a base station selecting a mobile station from among various mobile stations.

Therefore, unlike the Applicant’s claim 1, in Rong, the base station adjusts the transmission power with the user mobile station that it is in communication with, i.e., a user mobile station that has already been “selected” and has a data channel assigned to it. (See Rong, Abstract). Rong, therefore, fails to disclose, either expressly or inherently, at least the recited feature in Applicant’s claim 1 of a base station comprising a selection section which “...selects, from among a plurality of mobile stations, a mobile station to which a data channel is assigned, the selection of the mobile station being in accordance with both measured channel quality of a control channel for transmitting control information, which includes assignment information of the data channel or modulation and coding scheme (MCS) information, and independently measured channel quality of the data channel.”

Accordingly, the Applicant submits that even if Rong and Li were combined as proposed in the Final Rejection, the combination would still lack at least the above-noted features of claim 1 and thus these references, whether considered individually or in combination, do not render obvious the recited subject matter of claim 1. Independent claim 12 similarly recites the above-mentioned subject matter distinguishing claim 1 from the applied reference, although claim 12 does so with respect to a method. Therefore, allowance of claims 1 and 12 and all claims dependent therefrom is considered to be warranted.

With respect to the rejection of claim 8, the Advisory Action alleges that Kamel, in column 15, lines 25 to 37, does not disclose that one power up or down command of two

power up or down commands pertains to a data channel and the other power up or down command pertains to a control channel, but instead discloses that a power up or down command is generated based on both data and control channel qualities.

By way of review, claim 8 recites, among other features, the feature of: "...a determination section that determines, in accordance with the measured channel quality of the control channel, whether or not the channel quality information of the data channel is to be transmitted."

The Advisory Action alleges:

"As is apparent from the cited section of Kamel, col. 15, lines 25-37, the channels that the control commands occur over are two control channels, not one data channel and one control channel. The independent commands pertain to power up and power down commands. There is nothing in the citation to suggest that one control channel pertains to a data channel and the other control channel pertains to the earlier mentioned control channel, as the Applicant appears to assert. Rather, the citation clearly shows that a power up command or a power down command occurs over each of these two control channels, respectfully, and that these commands depend upon both data channel and control channel quality. In other words, both data and control channel quality are measured (1st and 2nd limitations), and based on this, a power or power down command is generated based on both measurements (encompassing the measured channel quality of the data channel – 3rd limitation), and is transmitted based on both measurements (encompassing the measured channel quality of the control channel – 4th limitation) hence meeting the claim limitations in question (emphasis added)."

Col. 5, col. 15, lines 25-37 of Kamel discloses:

"The method of FIG. 5 may be further explained by the following example, where a separate data channel and a control channel on different carriers participate in a soft hand-off. Accordingly, a mobile station 30 may establish a data target value and control target value. The mobile station 30 measures the physical data channel and the control channel (e.g., a group of logical channels originating from different sectors) to attain a data measurement and a control measurement for comparison to the data target and the control target, respectively. Two different power control channels can send independent power control commands to the base stations to power up or power down the base stations as appropriate (emphasis added)."

It is respectfully submit that the Advisory Action's reasoning is erroneous for at least the following reasons.

First, the Advisory Action alleges: "there is nothing in the citation to suggest that one control channel pertains to a data channel and the other control channel pertains to the earlier mentioned control channel, as the Applicant appears to assert." However, Kamel explicitly discloses measuring the "...physical data channel ...to attain a data measurement...for comparison to the data target."

Second, the Advisory Action alleges: "In other words, both data and control channel quality are measured (1st and 2nd limitations), and based on this, a power or power down command is generated based on both measurements." However, Kamel, in column 15, lines 25 to 37, explicitly discloses that "[t]he mobile station 30 measures the physical data channel and the control channel (e.g., a group of logical channels originating from different sectors) to attain a data measurement and a control measurement for comparison to the data target and the control target, respectively. Two different power control channels can send independent power control commands to the base stations..." That is, it is clearly understood from the disclosure of Kamel that two independent measurements (a data measurement and a control measurement) are found, and two independent power control commands are obtained from each of those two independent measurements. The power control commands are each independent, and therefore it is clearly erroneous that the Advisory Action interprets Kamel as disclosing that one power control command is obtained from both the data measurement and the control measurement.

Third, assuming *arguendo* that the Advisory Action's interpretation of the above-cited portion of Kamel were correct (which it is not), there still would be no disclosure or

suggestion in Kamel of “a determination section that determines, in accordance with the measured channel quality of the control channel, whether or not the channel quality information of the data channel is to be transmitted,” as recited by claim 8.

It is further noted that the Advisory Action’s apparent reliance on Kamel’s disclosure of sending power control commands over “two different power control channels” is misplaced, because claim 8 recites that a determination section “determines, in accordance with the measured channel quality of the control channel, whether or not the channel quality information of the data channel is to be transmitted,” which is not the same as transmitting two independent power control commands over “two different power control channels.” The Office Action has not identified where Kamel discloses the above-noted feature of claim 8, and it is respectfully noted that Kamel fails to disclose this above-noted feature.

The claimed methods and apparatuses recited by the Applicant’s claims are configured to determine whether or not the channel quality information of the data channel is to be transmitted, in accordance with the measured channel quality of the control channel. In contrast, Kamel fails to disclose determining whether or not a generated power up or down command is transmitted, and furthermore, Kamel fails to disclose determining whether a power up or down command of a data channel is transmitted, in accordance with a control measurement.

Accordingly, the Applicant submits that even if Kamel and Li were combined as proposed in the Final Rejection, the combination would still lack at least the above-noted features of claim 8 and thus these references, whether considered individually or in combination, do not render obvious the subject matter recited by claim 8. Therefore, allowance of claim 8 and all claims dependent therefrom is considered to be warranted.

In view of the above, it is submitted that this application is in condition for allowance, and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a personal communication, the examiner is requested to e-mail the undersigned at the address listed below to set up a telephone discussion.

Respectfully submitted,

/James Edward Ledbetter/

James E. Ledbetter
Registration No. 28,732

Date: October 25, 2010
JEL/DEA/att

Attorney Docket No. 009289-06205
Dickinson Wright PLLC
1875 Eye Street, NW, Suite 1200
Washington, DC 20006
Telephone: (202) 457-0160
Facsimile: (202) 659-1559
E-mail: JLedbetter@DickinsonWright.com